Session 02: Journals for Astronomy

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first semester, academic year 2022 21 September 2022 Before starting today's hands-on session...

Did you download OpenStax "Astronomy 2e"?

You need to read one chapter of OpenStax "Astronomy 2e" and give an oral presentation.

If you have not yet downloaded OpenStax "Astronomy 2e", download it today.

Have you started to read some pages of OpenStax "Astronomy 2e"?

Do you now have a rough idea how much time you need to finish reading the whole chapter?

Is reading a textbook difficult for you?

Come and talk to me if you need a help. I am happy to help you in any way that I can.

Journals for Astronomy (1)

- Journals for all the astronomers
 - AJ (Astronomical Journal)
 - ApJ (Astrophysical Journal)
 - ApJS (Astrophysical Journal Supplement Series)
 - ApJL (Astrophysical Journal Letters)
 - A&A (Astronomy & Astrophysics)
 - MNRAS (Monthly Notices of the Royal Astronomical Society)

Journals for Astronomy (2)

- AJ (Astronomical Journal)
 - American journal
 - https://iopscience.iop.org/journal/1538-3881
 - monthly
 - open access journal
 - Everyone can read AJ papers.
 - "The Astronomical Journal is an open access journal publishing original astronomical research, with an emphasis on significant scientific results derived from observations. Publications in AJ include descriptions of data capture, surveys, analysis techniques, astronomical interpretation, instrumentation, and software and computing."

Journals for Astronomy (3)



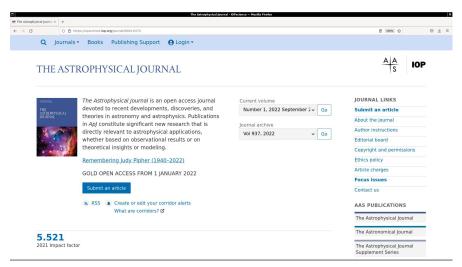
Astronomical Journal



Journals for Astronomy (4)

- Astrophysical Journal
 - American journal
 - https://iopscience.iop.org/journal/0004-637X
 - three times a month
 - open access journal
 - Everyone can read AJ papers.
 - "The Astrophysical Journal is an open access journal devoted to recent developments, discoveries, and theories in astronomy and astrophysics.
 Publications in ApJ constitute significant new research that is directly relevant to astrophysical applications, whether based on observational results or on theoretical insights or modeling."

Journals for Astronomy (5)



Astrophysical Journal

Journals for Astronomy (6)

- Astrophysical Journal Supplement Series
 - American journal
 - https://iopscience.iop.org/journal/0067-0049
 - monthly
 - open access journal
 - Everyone can read AJ papers.
 - "The Astrophysical Journal Supplement is an open access journal publishing significant articles containing extensive data or calculations. ApJS also supports Special Issues, collections of thematically related papers published simultaneously in a single volume."

Journals for Astronomy (7)



Astrophysical Journal Supplement Series

Journals for Astronomy (8)

- Astrophysical Journal Letters
 - American journal
 - https://iopscience.iop.org/journal/2041-8205
 - three times a month
 - open access journal
 - Everyone can read AJ papers.
 - "The Astrophysical Journal Letters is an open access express scientific journal that allows astrophysicists to rapidly publish short notices of significant original research. ApJL articles are timely, high-impact, and broadly understandable."

Journals for Astronomy (9)



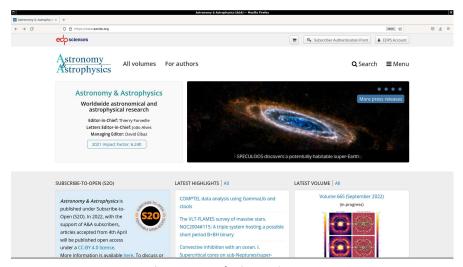
Astrophysical Journal Letters

Journals for Astronomy (10)

- Astronomy & Astrophysics
 - European journal
 - https://www.aanda.org/
 - monthly
 - open access
 - "Astronomy & Astrophysics (A&A) is a peer-reviewed journal that publishes original research in astronomy and astrophysics."
 - sections
 - Letters
 - Astrophysical processes
 - Cosmology (including clusters of galaxies), Extragalactic astronomy
 - Galactic structure, stellar clusters and populations
 - Interstellar and circumstellar matter
 - Stellar structure and evolution, Stellar atmospheres
 - The Sun and the Heliosphere
 - Planets and planetary systems, Celestial mechanics and astrometry
 - Atomic, molecular, and nuclear data
 - Astronomical instrumentation, Catalogs and data
 - Numerical methods and codes



Journals for Astronomy (11)

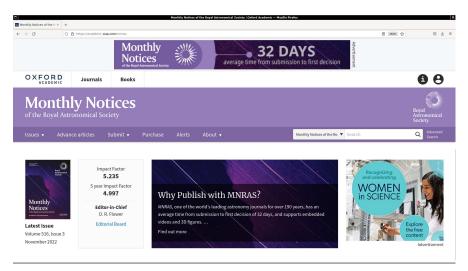


Astronomy & Astrophysics

Journals for Astronomy (12)

- Monthly Notices of the Royal Astronomical Society
 - British journal
 - https://academic.oup.com/mnras
 - three times a month
 - online-only publication
 - not an open access journal
 - You need to connect your computer to the computer network of our University to download papers.
 - Use Wi-Fi or VPN of our University.
 - "Monthly Notices of the Royal Astronomical Society is one of the world's leading primary research journals in astronomy and astrophysics, as well as one of the longest established. It publishes the results of original research in positional and dynamical astronomy, astrophysics, radio astronomy, cosmology, space research and the design of astronomical instruments."

Journals for Astronomy (13)



Monthly Notices of the Royal Astronomical Society

Today's Exercise #1

- Today's Exercise #1
 - Visit the official website of AJ or ApJ or A&A or MNRAS.
 - Search for a paper of your interest.
 - Download the PDF file.
 - Read the abstract of the paper you choose.
 - Choose one technical term about astronomy (or physics or mathematics).
 - Study about it.
 - Tell us the word you pick and describe about it.
 - Make a PDF file and submit it via Google Forms.
 - Do not forget to mention which paper you choose.
 - I give you 15 min for this.
 - Tell me if you have any difficulty for doing this exercise.
 - When finished, tell me so.

Journals for Astronomy (14)

- Some more astronomical journals
 - journal of review papers
 - ARAA (Annual Review of Astronomy and Astrophysics)
 - regional journals
 - Publications of the Astronomical Society of Australia
 - PASJ (Publications of the Astronomical Society of Japan)
 - RAA (Research in Astronomy and Astrophysics)
 - Journal of the Korean Astronomical Society
 - journal with many instrumentation papers
 - PASP (Publications of the Astronomical Society of the Pacific)
 - Experimental Astronomy
 - journal of high-impact papers
 - Nature Astronomy
 - Nature
 - Science

Journals for Astronomy (15)

- Some more astronomical journals
 - solar physics
 - Solar Physics
 - journal for solar system studies
 - EMP (Earth, Moon, and Planets)
 - Icarus
 - Meteoritics & Planetary Science
 - PSS (Planetary and Space Science)
 - GRL (Geophysical Research Letters)
 - JGR (Journal of Geophysical Research)
 - Geochimica et Cosmochimica Acta
 - others
 - New Astronomy
 - Astronomy and Computing
 - journals for cosmology
 - There must be some. Check out by yourself.
 - journals for celestial mechanics
 - There must be some. Check out by yourself.

Recommended journals

- Following journals are recommended for your reading.
 - AJ
 - ApJ
 - A&A
 - MNRAS

Some notes on choosing a paper for reading

- Make sure to choose a paper on a refereed journal.
 - Check whether or not a journal is a peer-reviewed journal.
 - This time, we choose a paper on AJ and all the papers on AJ are peer-reviewed papers.
- Do not choose a paper just because it is short.
 - If you choose a short paper, you probably need to read many more papers to understand the content of the paper you have chosen.
 - Nature and Science papers are short. But, it is not easy to read.
- Choose a regular paper.
 - \bullet Letters are short. Usually, letters are limited to \sim 4 pages.
 - Review papers have lots of contents.
 - Do not choose a research note.

Submit the form.

- Do the exercise #1, and submit the form by 10:00 on 28/Sep/2021.
 - The submission of the exercise can prove your attendance of today's class.

https://s3b.astro.ncu.edu.tw/seminar1_202209/